Broadcast Pix

Professional Video Productions Systems with End-to-End Integration

Creative Control, Unrivaled Simplicity

FLINT | MICA | GRANITE

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Professional Video Productions Systems with End-to-End Integration

Creative Control, Unrivaled Simplicity

Broadcast Pix offers innovative integrated production systems with end-to-end integration so you can easily create highly professional live video. Broadcast Pix systems can be configured with up to 29 channels and sources including a wide variety of cameras, files and cloud-based content. You will use world class production tools and workflows to deliver stunning live video, whether for broadcast, streaming or live events.

Integrated Ingest

- Ingest multiple cameras
- Ingest Skype, PowerPoint and anything on a PC or Mac
- Ingest files pushed in from anywhere in your studio
- Ingest cloud-based content
- Ingest Twitter, RRS Feeds, Data,...

Production Toolset

- Control surfaces from intuitive touch-screens to big innovative control panels
- Multi-input switcher
- Clip players
- CG graphics and animations
- Patented device control bank
- Dazzling fluent macros
- Virtual sets
- Customizable fluent-view
- Internal audio mixer
- Control robotic cameras and other devices
- Add operators
- Mix switcher panels based on need

Integrated Delivery

- Stream
- Video Outputs in Multi-Formats
- Record
- Lip sync protection and high redundancy

Ideal for Broadcast

Streaming

and Live Events

Control Surfaces

For Today's Content: Video, Files, and More

The innovative Broadcast Pix video production system lets you intimately control not just video sources, but also today's file-based sources and more. Whether you choose a panel or use a touch-screen, we provide the fast, tactile control that creates a great live production.

Customizable Fluent-View

See video, files,…

Go way beyond conventional multi-views that just show two outputs plus video sources. Fluent-View adds windows for your clips and graphic file libraries, each of your key layers, 4 outputs, clocks, counters, safe areas and incoming files. And it's fully CUSTOMIZABLE.

Patented Control Panels

Control video, files,…

Classic switcher layout, with up to 22 HD/SD video inputs, 7 channels of file inputs, and 6 key layers. Patented device controls let you select any internal clip, title, or graphic, or any camera, recorder, server or streaming device -- then control it with the PixPad, knobs, joystick and motion controls.

Unique Fluent Macros

Recall switcher, files,…

Create amazing effects with the only memory system that combines switcher moves with specific files, camera moves, and more. Like this one with 3 PiPs in key layers, an animated background file, a title file and animated logo file.

Patented PixButtons

File names on the buttons

Unique PixButtons™ have built-in dynamic displays to tell you what source or device is assigned, and even the file name. No surprises!

Or do it all from a Touch-screen!

Easy and Intuitive

and only from Broadcast Pix

Control Surfaces for Today's Content: Video, Files and More

Virtual Sets
Create your own virtual sets in minutes

External Control
Robotic cameras, recorders, streamers, audio mixers, and servers

Data Control
Fluent Rapid CG 2: connect CG to databases, RSS, Daktronics

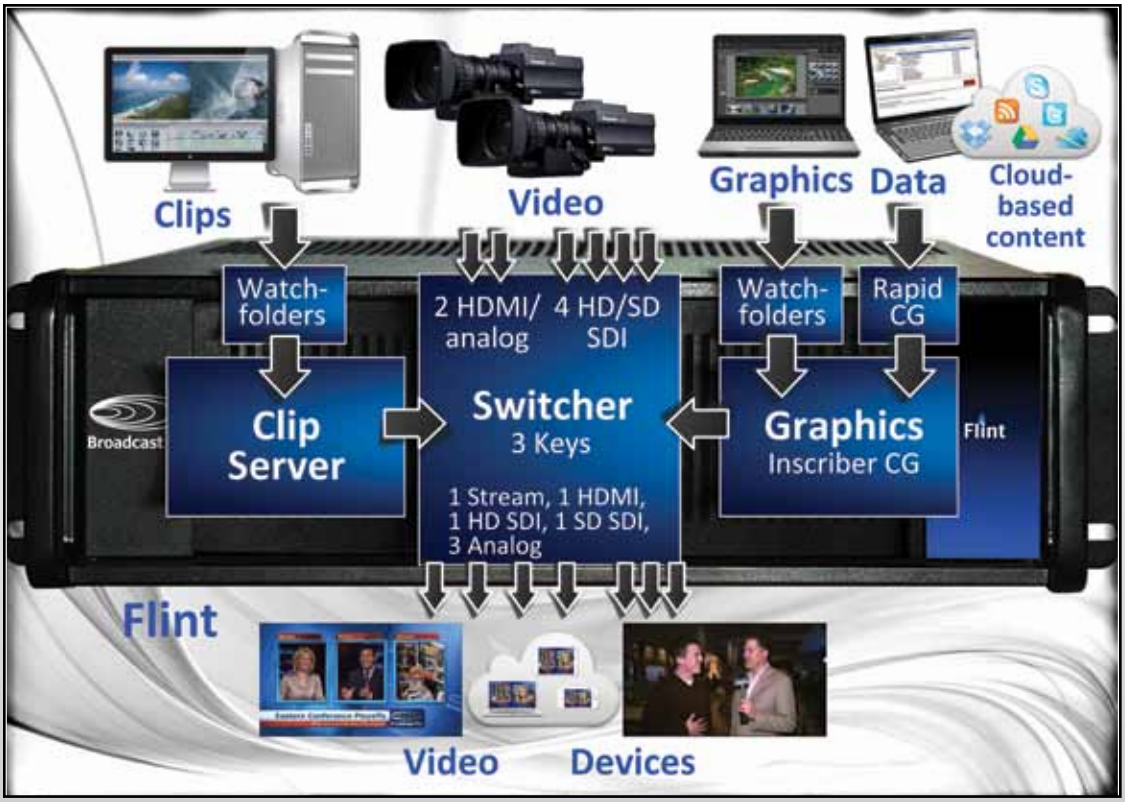
Distribute Control
Add operators on keyboard, laptops, iPads, iPhones, androids

Voice Control
VOX: microphones trigger show creation, without an operator

Complete Studio

Complete System: Switcher, Clip Store, CG Graphics, Animations,...

Inside every Integrated Production System is a powerful switcher, with an integrated clip store, graphics system and animations. End-to-end integration includes ingesting files from the studio and the cloud. Fluent Watch-Folders enables clips and graphics to easily flow into the system from your favorite editing and graphics systems, even during a live production. And, Fluent Rapid CG connects data directly to the graphic system. A Flint system is shown below, it also includes an 8-channel audio mixer, internal recording and streaming.



Cloud-based Content

Bring Cloud-Based Content to Live Productions

Access to cloud-based content is becoming more important in today's live video production environment. Using Fluent Watch-Folders, Broadcast Pix's built-in ingest and content management system, access to any file from a cloud-based resource is easy, even during the middle of a live production. Cloud data storage services includes Dropbox, Google Drive and Microsoft SkyDrive. Now when you are home and remember you forgot to add a critical graphic to your show, you can do it from your smartphone. And your colleagues can add files to your production from across town or across the globe. The system operator is alerted when a file arrives, the file's thumbnail appears on the system monitor, and the file name appears on the control panel's button. Broadcast Pix's 3 models have enhanced PixMaster file management software to view and manage file metadata, such as setting files to auto-start when taken into the live show.

Optional Fluent Rapid CG software connects cloud data directly to on-air graphics. New Fluent Rapid CG LT connects to Twitter and other cloud data sources, enabling the viewing audience to become part of the production. Tweets can flow directly to air or be pre-screened with a built-in management system for editing, reordering, or deleting Tweets. Specific words and users can also be automatically blocked. Fluent Rapid CG LT also enables RSS, clock, and weather feeds to flow into on-air graphics.

New Fluent Rapid CG V3 includes all the LT features plus dual-channel connectivity to local and cloud-based databases, news automation, and scoreboards. Cloud-based databases are becoming common for sports, elections, and other applications, for example, and Fluent Rapid CG V3 allows sports scores in league databases to automatically flow into on-air graphics. Graphics can also be updated from local and cloud-based databases to automate multiple graphics simultaneously. And graphics can be automatically updated from Daktronics and now OES scoreboards.

Touch-screen Control

Intuitive

Touch-screens are an easy and fun way to create dynamic live video. Add one to a Broadcast Pix Desktop system and create with touch, not just a mouse. Or use a touch-screen to complement any one of our panel systems, such as to select clips or fire macros. Touch-screen brings a whole new dimension to live video production, another control innovation from Broadcast Pix.

Spread your control surface across two screens, up to four on Granite. Fully customize as each window can be independently sized. And, if you ever want to add a panel someday, just plug one in.

Each Desktop Integrated Production System has a powerful video switcher (page 17, 18 and 19), an integrated Fluent-View monitor (page 7), clip store holding hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Create Virtual Sets (page 10). Extend control to external devices, nd distribute control to additional operators when needed (page 11).

Fire-off a Fluent Macro to launch a dazzling effect, like show open, an animated transition, or PiP boxes on an animated background.

Open the Harris or Chyron CG to create Broadcast quality titles.

Touch program to cut your composition "to air", touch preview to take it to air with a transition.

Touch a device selector to bring it to the PixPad, like clips or graphics.

Touch the clip (or graphic) you want on the PixPad to select it.

Touch the camera or source you want to preview.

Touch the PixPad's joystick and knobs to move a robotic camera or position a PiP box. Push a little and it moves slowly. Push more and it moves faster. Or tap the nudge buttons. Use the motion controls.

Touch "Assign" and then a source to assign a source to a key layer.

Touch "Trans" on a key layer to add it to preview. (Touch the key window to add it directly to program)

Voice-Automated Control

VOX

Broadcast Pix VOX™ enables any Flint, Mica or Granite systems to create great live video without an operator. Use VOX as the primary control device, or you can add a panel and manually control some shows and let VOX automate others.

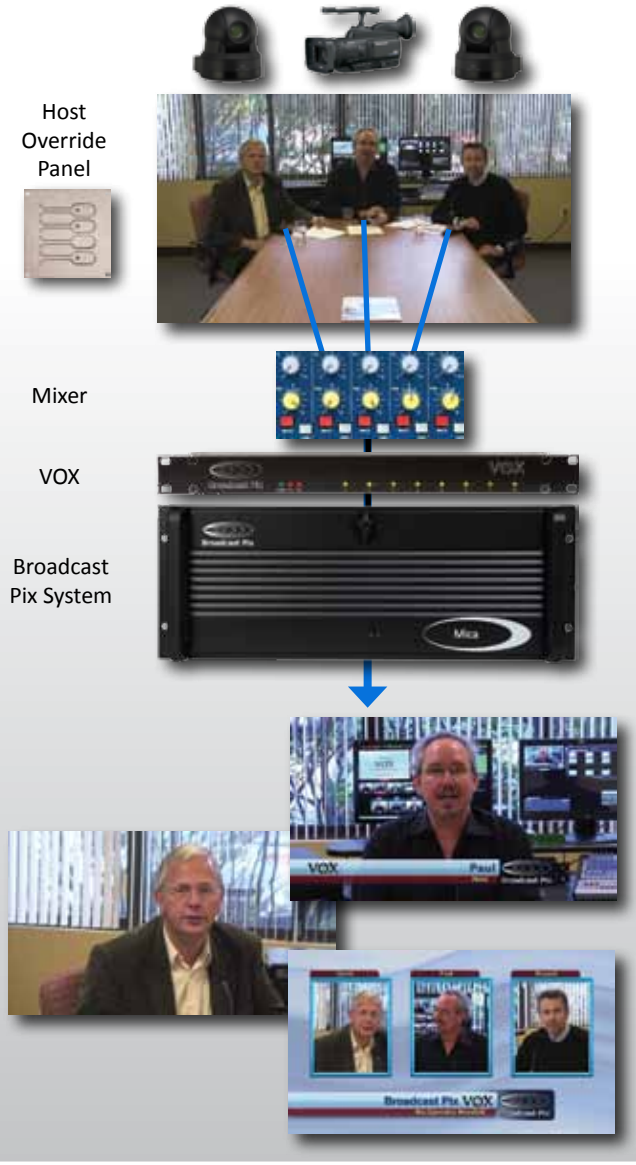
The 1RU VOX box detects which microphone is active, and then sophisticated VOX software creates a video production that looks so good that the audience assumes an operator is running it. One VOX box can support up to 8 microphones, and more can cascade for over 100 microphones.

For example, when the host talks into microphone 1, VOX can automatically choose a camera preset, take the camera to air, fade on the graphic title, hold, and then fade off the title.

VOX works by triggering powerful Fluent Macros on the Broadcast Pix system. While VOX can execute simple shots for each microphone, the VOX software has the intelligence to do a LOT more. It can have multiple macros for each microphone, like a wide shot and close-up. It can mix in a collection of group shots, like a wide shot or a shot with 3 PiP boxes. VOX can set how often titles are shown. Inputs can be prioritized to rank the importance from the host to the least important guest. To prevent every sound from activating a macro, a cough or a simple "yes" or "no" can be filtered out. Timing can be set for a fast-paced production, like radio, or for a slower one, like some meetings.

The host can take control of VOX, with the included 4-button override panel. For example, the host can roll an introductory clip, or select the wide shot, or return the system to automated VOX control. For more extensive host control, an optional Remote Panel can be added.

Operator Optional Live Production



Just Two of the Many Uses of VOX

Add Video to Radio

Many radio stations are broadcasting on the internet or television, and VOX is a great way to add video to it, without adding an operator. Shown above is Qmusic, a radio network that broadcasts video with VOX. According to Qmusic engineer Rudi Wynants, *"VOX makes it dynamic, so the 'listener' does not get the idea that everything is automated by a computer."*

Meetings on the internet, television, or auditoriums

VOX is ideal for producing many meetings on television or the internet, including meetings for government, corporate, and education. And thanks to the minimal constant delay of the Broadcast Pix system, VOX is even great for auditorium productions.

VOX never gets tired, Never gets bored.

VOX pays for itself quickly, and solves the meeting operator turnover problem. Often producers of meetings say: "My biggest headache is hiring and training operators. Operator turnover is high, as the productions are often not that much fun. My operators get bored and miss switches. For some programs, we've given up on operators and just use a wide shot".

Customizable Fluent-View

Exceptional Feedback

Fluent-View is the most comprehensive heads-up display to compliment any switcher or video production system. It provides great feedback if you are on a panel, or use a touch-screen or a mouse and create on the Fluent-View. Set-up the perfect layout for each show, as every window can be opened, closed, resized, re-colored, and re-aligned. Layouts can be saved and recalled.

Fluent Watch-Folders Be alerted to incoming files from your editing and graphics systems.

Four Outputs See Program, Preview, PowerAux and Clean Feed or on Granite 6000 and 5000 the second M/E.

PixPad See clip and graphic file libraries on thumbnails that correspond to the PixPad on the control panel. It can also select camera presets, or start a ViewCast streamer or AJA Ki Pro recorder.

Clocks See countdown clocks for each clip and animation, time-of-day clocks, and an integrated show countdown timer.

Video and File Sources See cameras and other external sources, plus internal clip, animation and graphic stores.

Four Outputs See Program, Preview, PowerAux and Clean Feed or on Granite 6000 and 5000 the second M/E.

CG Integrated Harris TitleMotion GS Character Generator, or (on Granite and Mica) the optional Chyron Lyric Pro CG.

Key Layers See the contents of every key layer.

PixPad See clip and graphic file libraries on thumbnails that correspond to the PixPad on the control panel. It can also select camera presets, or start a ViewCast streamer or AJA Ki Pro recorder.

Replicate Spread across two monitors, and replicate any window, like program output. Granite can spread across up to 4 monitors, with a Quad-monitor option.

Fluent Macros Edit and fire-off dazzling effects, using unique file-based macro memories.

Integrated Clip Store

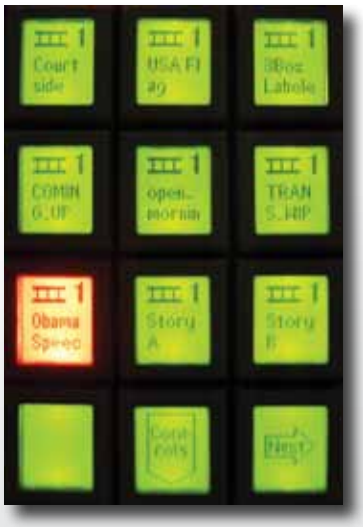
Add Stunning Clips and Animations

The Broadcast Pix clip store puts many hours of clips at your fingertips. Up to 30 hours on Flint and Mica, up to 180 hours on Granite. Flint systems have 2 clip channels plus 6 animation channels, with audio. Mica and Granite systems have 1 clip channel plus 2 animation channels.

Instant Access

Select a clip store on the control panel and then all of the panel's device controls are dedicated to it, including PixPad, knobs and motion controls. The PixPad shows the first 9 clips, or push next for the next 9. The clip names are on the buttons, so you know exactly which clip you are selecting. Look up at the Fluent-View to see a corresponding PixPad with the thumbnails for each clip, plus their file names and meta data, like whether the clip is set to auto-start.

Touch them on the panel...



...See them on the Fluent-View

Auto-Start and Playlists

Use the motion controls to manually start and stop clips, or take advantage of the clip store's powerful automated features. Auto-start on transition to air. Create a playlist by setting clips to automatically play the next clip or to transition back to the talent. Set animations to loop for beautiful backgrounds. You can also scrub clips, set mark-in and out points, add refrain points and even aspect correction.

Auto Start... **Auto Advance...** **Auto Transition**

Dazzle with Animations

Spice up your production with animations. Great for moving backgrounds, behind PiP boxes, or for moving titles or powerful transitions. Create animations on the built-in CG, or on your favorite animation system, including Apple Motion, Adobe After Effects, and Digital Juice. Easily create animated transitions by setting a cut point on the animation.

Popular Formats

Use Fluent Watch-Folders to rapidly add clips and animations to your system from popular editing systems. The Granite and Mica play HD .mov or .mp4 clips in H.264 or ProRes in their clip store, and as well as short QuickTime Animations and Targa sequences in their animation stores. With optional premium storage, Granite can also play long animations in its clip store. The Flint clip stores play 1920x1080i ProRes PX/LT/422/HQ/4444, H.264 .mov/.mp4, DNxHD .mov, QT Animations, Motion JPEG .AVI and also animate a folder of Targa sequences. Clips and animations support audio through the system's XLR outs.

ProRes

MP4

H.264

QuickTime Animations

Integrated CG

Broadcast Pix Quality Graphics

Every Broadcast Pix system has a built-in Character Generator (CG) so you can add network-quality graphics.

Flexible Workflow

- Create graphics before going to air.
- Change graphics while on air by just right-clicking on its thumbnail and editing live.
- Create graphics in Photoshop and bring into your CG as background elements.
- Create entire CG graphics on another computer by ordering an offline CG license.
- Automate Harris graphics production by adding the Fluent Rapid CG 2 option, (see below).

Harris Inscriber TitleMotion GS

The Harris Inscriber GS CG is standard with every Broadcast Pix system. It's a new CG that is easy to use and follows standard conventions that you will recognize. It's the same CG engine used by leading studios worldwide to create striking titles. Creates rolls, crawls and animations. Use easy templates, create your own look with its powerful tools, or import elements from Photoshop or elsewhere.

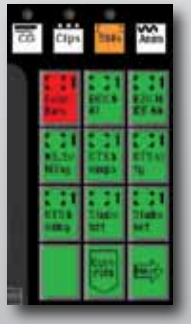
Chyron Lyric Pro 8

Chyron Lyric PRO 8 is optional on Broadcast Pix Granite and Mica systems. Chyron is widely used by leading broadcasters. Chyron users will enjoy the same interface that they are used to, and the Broadcast Pix system will play the same Lyric files with their visual sophistication. Create powerful titles, graphics and pre-rendered 3D animations, and import favorite elements to use in them.

Integrated Graphic Stores

Store thousands of graphics and instantly recall them. There are four channels of graphics stores for CG graphics you create and for other graphics you import. The contents of each channel can be instantly accessed from the PixPad, just like clips. With Fluent Watch-Folders, others can send you last-minute graphics in a wide variety of formats, including .tga, .bmp, .jpg, .tif, and .png.

Fluent-View PixPad



Panel PixPad

Automate Graphics

Streamline graphics creation by adding optional Fluent Rapid CG to the built-in Harris CG.

Start with easy, quick and acurate template filling. Have an RSS feed automatically update a graphic. Connect the CG to an XML or Access database, then just select an athlete's name and your graphic will automatically show their picture and statistics. Create your own action buttons to increment any graphic, like a score. Add clocks and dates. It's great for any application with rapidly-changing data like sports, election returns and game shows.

Fluent Rapid CG LT

Connect cloud-data to your graphics, even flow Tweets right to an on-air CG graphic. Connect to Twitter, RSS Feeds, weather and date/time data. Update multiple graphics at once. A pre-screen lets you identify the ones that you do not want to go to air. Create your own action buttons to manually increment any text or number, like a score.

Fluent Rapid CG 3

Fluent Rapid CG includes everything in Fluent Rapid LT, plus is two channels and can connect to databases and scoreboards. Connect the CG to XML, Access or Excel databases for unlimited access to dynamically updated stats and facts, much faster than ever before. Connect to cloud-based XML databases. Connect to Daktronics and OES scoreboard controllers. It's the perfect option for numerous applications with rapidly-changing data: sports, elections, auctions, game shows and more.

Virtual Sets

Create Your Own Great Sets in Minutes

Broadcast Pix virtual sets create a professional look, and are so easy to use and customize. Virtual Sets are included on all Flint, Mica and Granite models except the 5000 and 6000.

Professional Look

Virtual sets work with cameras shooting in front of a green (or blue) screen. You can have up to 8 camera angles, and you still have three keys to position graphics and PiP boxes on top.

Place a virtual set inside a PiP Box. Create sophisticated looks with 2 or even 3 PiP boxes, position them anywhere you want, even on top of animated backgrounds. You can even zoom any PiP shot out to full screen, or pull it back into the box.

So Easy to Use, and Customize

Some virtual sets look great in demos, but are very difficult to customize when you get home, Broadcast Pix makes it so easy to create your own look. Use any of the five included sets, each with many angles, by just attaching an angle to each green screen camera. You can also buy more sets from any supplier.

Best of all, create your own set in minutes out of any picture. Use a stock image or take one with your camera. Use a picture to transport your set anywhere, in minutes!

Use two virtual sets, one for a "studio" and one for "on location"

Zoom either out to full screen, or pull back into the virtual set

Use Any Picture to Transport You Anywhere

1. Get a picture from a camera or stock library, and drop it into the included **Image Editor**.

2. The image editor sizes it. Then select the area you want with the yellow box, and apply some blur to simulate depth of field for a close up.

3. Set up the green screen, by just clicking on the green with the eyedropper. Fine tune with the controls.

4. Combine the treated image and the camera.

5. Add up to 3 key layers on top, such as this PiP box and title.

Integrated Control of External Devices

Every Broadcast Pix system can control other devices in your studio, with device control software.

Robotic Cameras
from Panasonic, Sony, Hitachi and Telemetrics

Be your own camera operator. Select preset positions on your PixPad. Use your joystick and knobs to manually control position, zoom, focus, iris, even white balance. Super-charge your Fluent Macro effects by adding camera moves. Control robotic cameras from Sony, Panasonic or Hitachi, or choose our Telemetrics control for just about any camera brand. Control 12 Sony cameras with 16 presets each, and 12 Panasonic cameras with 100 presets each. Optional.

Streaming Appliances from Matrox

The best way to stream. Start and stop streams from your panel. The Matrox Monarch HD gives streaming and broadcast quality recording capabilities to any Mica or Granite system through a Matrox Monarch HD. Optional

Recorders from AJA Ki Pro

The best way to record your program output. Control the AJA recorder from the panel or from a macro. You can also use the Ki Pro as another channel of clip player and control it right from the PixPad. Standard.

Servers from 360, Harris, Omneon

Control external video servers from Omneon, Harris and 360 Systems. See and select clips on the PixPad. Play them with motion controls or auto-start them. Optional.

Audio Mixers from Yamaha and others

Have your audio mixer automatically follow your video creation. Set microphones and other audio gear to fade up or down depending on which camera you select. Control MIDI mixers, including Yamaha and Roland. Optional.

Distribute Control to More Operators

Add Team Members

The control surface is so powerful that a single operator can create great video that used to require a team. But when you still want a team, it's easy to add help. Add a second screen for a graphics operator, especially if you have a lot of graphics changing during the show. Add more team members on SoftPanels, iPads, mobile phones or remote panels, plus add team members contributing content across the network to Fluent-Watch-Folders.

SoftPanels

Add another operator on our included soft panels on a laptop or Droid. Its network connectivity means you can control your system from anywhere in the world. Control clips and devices with our free iPhone app. It puts a PixPad in your hand – great for extra helpers on any system. Or, drive your show with our iPad panel app. How cool is that?

On a Laptop... **iPad** **Android** **iPhone**

Remote Panels

The Broadcast Pix Remote panel is a valuable option for Granite, as it offers the flexibility of an Aux panel, sending any one of your external sources, as well as Program, Preview, Power Aux, or Clean Feed to any of your Granite outputs. Plus up to 22 of your most-used Fluent Macros can be right in front of you at all times. Install your Remote Panel via network anywhere in your facility. On Mica, the remote panel is great for controlling the Power Aux output or for running macros.

Granite 6000

Wide 2 M/E Power

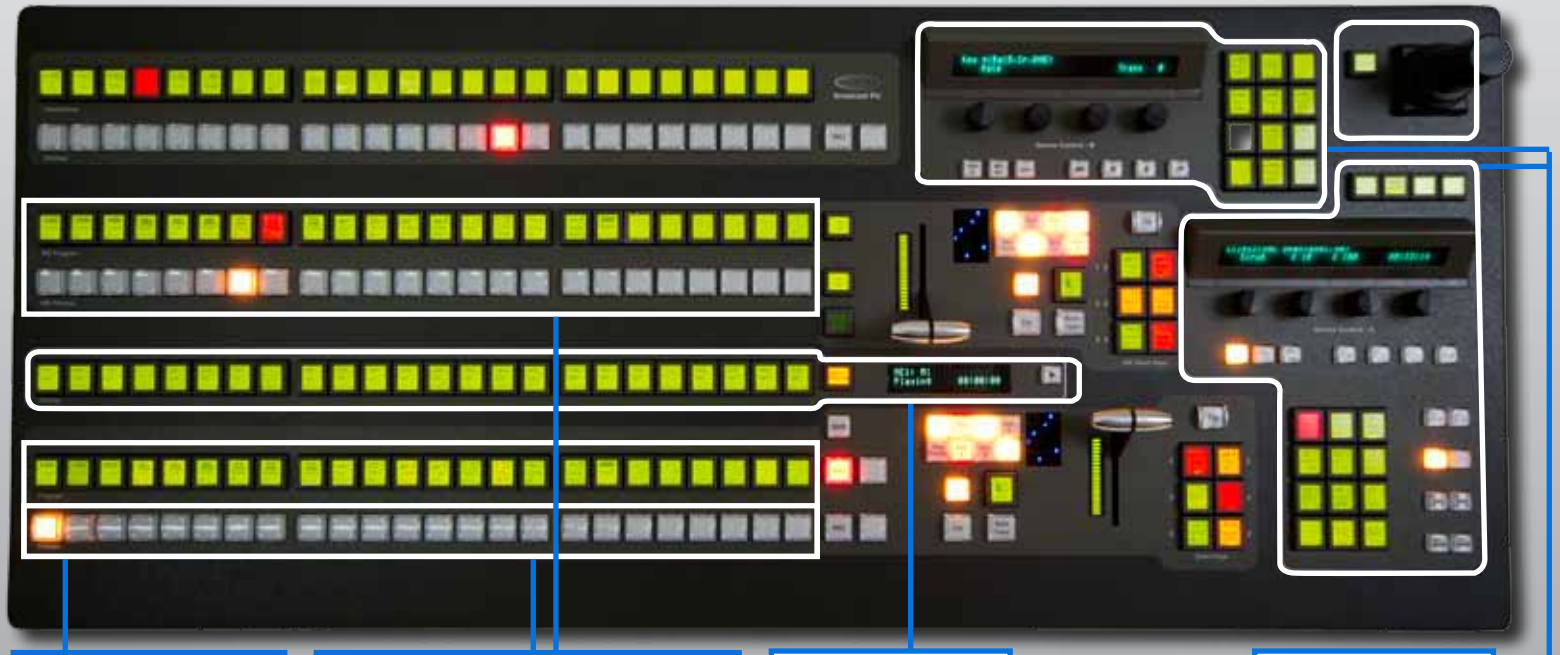
Quad-Monitor

Enjoy the most comprehensive feedback. With four monitors you can have one wall monitor for outputs and one for sources and the six key layers, plus a personnel touch-screen for a PixPad and macros, and a monitor for the integrated CG graphics system. Quad-monitor is optional on all Granite systems.

The Granite 6000 Integrated Production System has a powerful HD/SD video switcher (page 17), an integrated Fluent-View monitor (page 7), clip store holding up to 120 hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Extend control to external devices, and distribute control to additional operators when needed (page 11).

6000 Panel

The 6000 panel is our largest and most powerful patented control surface. It features a wide 2 M/E switcher panel with 24 source buttons across (32 with shift), to quickly harness the maximum power of a Granite System. It has up to 22 external SDI inputs plus 7 internal channels of file-based inputs.



The 6000 panel features 24 buttons in each source row, so you have instant access to more sources with one push. They are grouped into 3 banks of 8.

Broadcast Pix provides the only 2 M/E (Mix/Effect) systems that access both video and file-based content. 2 M/E's allows you to set up a powerful look on an M/E wholly separate from the one on which you do your main switching. Or, combine M/Es by putting one into a PiP box on the other. Drive a dual-screen production with full control of each, and add more screens with auxiliary outputs. Or, produce shows tailored to two audiences, such as one for broadcast and the other for the Internet.

One of the most unique features of a Broadcast Pix system is device controls, and the 6000 panel has 2 banks. Each bank has a PixPad of PixButtons showing file names. For example, use one bank to control the built-in clip store and the other for the built-in graphics system.

Panel Dimensions
39.4 x 16.5 x 5.5 in /
100 x 42 x 14 cm

Panel Power
Redundant 150W

Panel Weight
29 lbs / 13.2 kg

One of the most unique features of a Broadcast Pix system is device controls, and the 6000 panel has 2 banks. Each bank has a PixPad of PixButtons showing file names. For example, use one bank to control the built-in clip store and the other for the built-in graphics system.

Granite 5000

Compact 2 M/E Power

Broadcast Pix Granite 5000 has the power of a Granite 6000 in a more compact panel, with 16 buttons per source row. It features a 2 M/E switcher panel up to 22 multi-definition SDI inputs plus 7 internal channels of file-based inputs, and 12 SDI outputs plus 2 DVI outputs.

The Granite 5000 Integrated Production System has a powerful HD/SD video switcher (see page 17), an integrated Fluent-View monitor (page 7), clip store holding up to 120 hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Extend control to external devices, and distribute control to additional operators when needed

5000 Panel

Broadcast Pix Granite 5000 has all the features of a powerful 2 M/E in a more compact size. It features 16 buttons per source row, a 2 M/E switcher panel up to 22 multi-definition SDI inputs plus 7 internal channels of file-based inputs, and 12 SDI outputs plus 2 DVI outputs.

Panel Controls

The 5000 has 6 keyers and 12 auxiliary busses, each of which can be easily assigned in the delegation section.

Broadcast Pix provides the only 2 M/E (Mix/Effect) systems that access both video and file-based content. 2 M/E's allows you to set up powerful looks on the off-air M/E, or combine M/Es by re-entering in a keyer, or use each M/E to control a separate output such as two screens. Each M/E has controls for program and preview rows, and a next transition section with fader arm, transition controls, wipe generator, fade-to-black and 6 keyers. Key layer priority is shown in the blue display, and can easily be changed at the press of a button. The keys can be part of the transition, or taken directly on and off air.

The Fluent Macro controls enable one-push access to 16 Fluent Macros, each of which is described with words or a picture on a PixButton (shift for 32). There is also a dedicated macro display and a play button. Enjoy the only switcher macro system that recalls any specific file.

Panel Dimensions
32.5 x 16.5 x 8 in /
83 x 42 x 20 cm

Panel Power
Redundant 150W

Panel Weight
24 lbs / 10.9 kg

There are two patented device control banks. Either can control the built-in clip store, animation store, CG title store or graphics store, a keyer, aux bus, or count-down timer, as well as external robotic cameras, servers, streamers and recorders. Each device control bank has a PixPad of 12 PixButtons plus 4 knobs, motion controls and a display. The 3 axis joystick is

Granite 2000 and Mica 2000

The Broadcast Pix 2000 System feature our largest and most powerful 1 M/E panel. It's available as a Granite 2000 or a Mica 2000. The 2000 panel is also available as an optional control panel for Flint.

The Granite 2000 has up to 22 SDI inputs and 12 SDI outputs. The Mica 2000 has 8 SDI inputs plus 1 more for a key cut and 6 SDI outputs. Both models also have 7 channels of built-in clips, animations and graphics, plus 2 DVI outputs.

Each 2000 Integrated Production System has a powerful HD/SD video switcher (see page 17 and 18), an integrated Fluent-View monitor (page 7), clip store holding hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Create Virtual Sets (page 10). Extend control to external devices, and distribute control to additional operators when needed (page 11).

2000 Panel

The 2000 panel is our largest and most powerful 1 M/E panel. It is intended for large productions and features a 16 buttons per source row, dedicated macro bank and expanded device controls.

Quickly assign each key layer and each auxiliary bus output.

16 buttons for quickly firing off Fluent Macros effects (32 with shift). Only Fluent Macros combine switcher moves with recalls of specific files.

Classic professional switcher layout, with 16 source buttons (32 with shift) for rapid selection of sources. PixButtons show source and file-name and dynamically change.

Transition controls include 6 keyers with priority controls, a bank of 6 controls with layer priority controls, 6 DVEs and PiP boxes.

Panel Controls

Patented bank enables control of the internal clip store, animation stores and graphic stores, plus external robotic cameras, streamers, servers and recorders. The 2000 has dedicated buttons for each internal stores plus 4 assignable external buttons.

Panel Dimensions
27.5 x 12.5 x 7 in / 70 x 32 x 18 cm
Panel Power
Redundant 100W
Panel Weight
16 lbs / 7.3 kg

Granite 1000, Mica 1000, and Flint 1000

PixButton Power

The Broadcast Pix 1000 Integrated Production Systems include a spacious control panel that features our patented PixButtons – for switching video and file-based sources with maximum confidence.

Each PixButton has a built-in display which shows the device icon and the file name of a clip or graphic. They dynamically change during production, so you always know what is on every source and key layer. A bank of PixButtons on the panel's versatile PixPad makes it easier to select content libraries, camera presets, and more.

The video inputs range from 11 or 22 on the Granite 1000, to 8 on the Mica 1000, up to 6 on the Flint 1000. Plus each model adds 7 channels, 8 on Flint, of file-based inputs.

Each 1000 system has a powerful video switcher (see page 17, 18 and 19), an integrated Fluent-View monitor (page 7), clip store holding hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Create Virtual Sets (page 10). Extend control to external devices, and distribute control to additional operators when needed (page 11).

1000 Panel

The 1000 panel is a spacious control panel that features our patented PixButtons – for switching video and file-based sources with maximum confidence. LED displays built into the buttons dynamically change to show contents. There's an icon for the device and the file name, for example the River from the 1st channel clip store.

Panel Controls

Delegation for key layers and auxiliary outputs.

Switcher controls have 9 PixButtons to see the first 9 sources, both video and file-based, shift to see 9 more. Delegation for key layers and auxiliary outputs.

Patented device controls to access any clip, animation or graphic in the internal devices, plus Fluent Macros, external robotic cameras, streamers, recorders and more. Device control bank includes PixPad of 12 PixButtons, knobs, 3-axis joystick, motions control and display.

Control 3 key layers, shift for 3 more.

Panel Dimensions
18.5 x 12.5 x 5.5 in / 47 x 32 x 14 cm

Panel Power
45W

Panel Weight
7 lbs / 3 kg

Granite 500, Mica 500 and Flint 500

Pro Power in a Compact Space

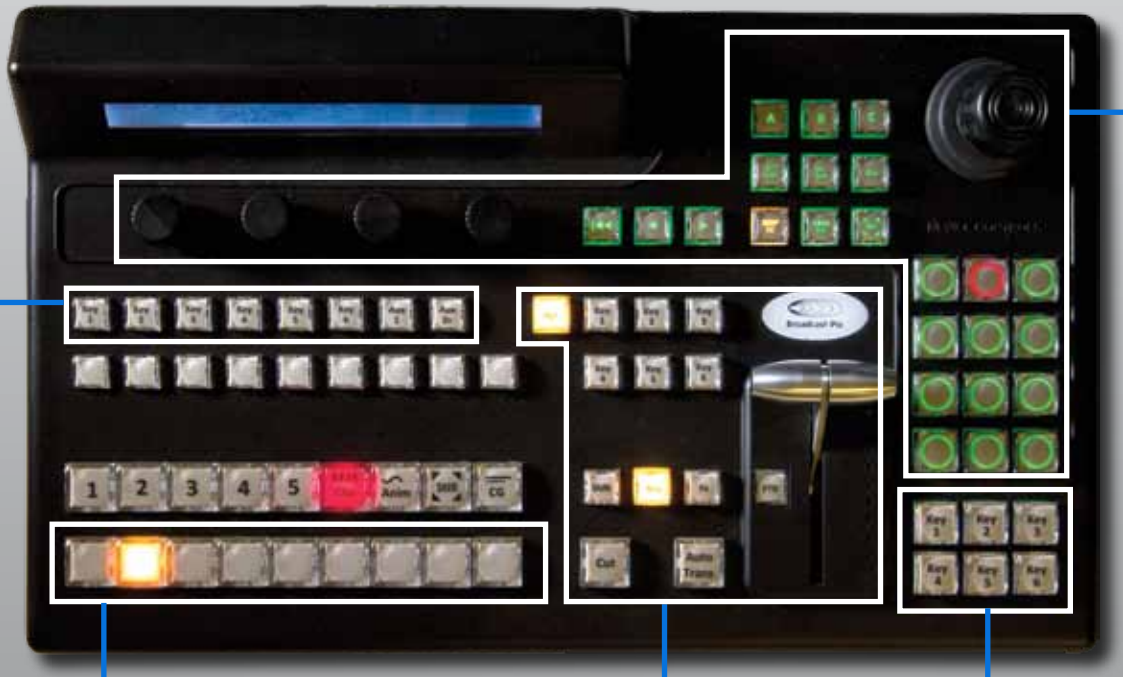
The Broadcast Pix 500 Integrated Production System packs a full set of professional controls into a highly compact package that fits in a rack drawer, and it's easy on your budget.

The video inputs range from 11 or 22 on the Granite 1000, to 8 on the Mica 1000, or up to 8 on the Flint 1000. Plus each model adds 7 channels of file-based inputs.

Each 500 Integrated Production System has a powerful video switcher (see page 17, 18 and 19), an integrated Fluent-View monitor (page 7), clip store holding hours of clips (page 8), and a graphics system that includes a Harris or Chyron character generator (page 9). Create Virtual Sets (page 10). Extend control to external devices, and distribute control to additional operators when needed (page 11).

500 Panel

The 500 panel is a compact heavy-duty professional control panel that combines switcher and device control banks. The switcher controls access 9 sources (more with shift), add the 3 key layers and fader. The device control bank has a 12 button PixPad that corresponds to the one on the Fluent-View, plus 3 axis joystick, knobs, display and other controls.



Assign sources to keys and auxiliary outputs.

Panel Dimensions
15.2 x 9.3 x 4 in /
39 x 24 x 10 cm

Panel Power
30W

Panel Weight
5 lbs / 2 kg

Panel Controls

Patented Device controls to control clips, titles, graphics, Fluent Macros, cameras, streamer and more. Includes PixPad, 4 knobs, 2D joystick (3D optional), motion controls and display. See the PixPad's content on corresponding thumbnails on the Fluent-View.

Switcher has 9 source buttons (18 with shift) to select video and file-based sources. See the content of each on corresponding windows on the Fluent-View.

The switcher's next transition controls include fader arm, up to 6 keyers, and fade to black.

Buttons to select 3 or 6 key layers. See content of each key layer on corresponding key windows on the Fluent-View.

Granite System

HD/SD Maximum Capacity and Redundancy

Granite is our highest capacity, most redundant system with the most options including 2 M/E models. Each has a Granite Switcher and a Granite Server.

Granite Systems

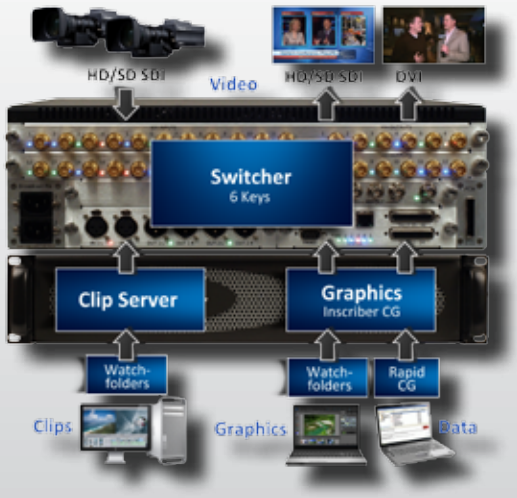
Granite is our premium line of Integrated Production Systems. It has the highest I/O capacity, most redundant architecture, and the most options. Each Granite system includes a Granite Switcher and a Granite Server. The switcher is available with 11 or 22 HD/SD SDI inputs and has 7 channels of file-based inputs from the Server, and the switcher has 6 key layers for compositing. The server holds up to 180 hours of clips, plus graphics, and has access to cloud-based content. Redundant power and switching are standard. Granite options include 2M/E control, quad monitor Fluent-Views, and extended clip storage and redundancy. Granite has the widest variety of control surface options and panels.

Granite X Systems

The Granite X Series is designed for large-scale live productions with many cameras, and has a choice of 3 control surfaces, the 2000, 5000 and 6000. All Granite X models come standard with 22 SDI inputs and 12 outputs, a quad monitor Fluent-View, and 2 M/E's. The Granite X Series also features a unique enhanced Fluent-View with 16 full motion windows for cameras and other external inputs, up from 8 in the standard Granite. Additional external inputs move more slowly. All Granite Fluent-Views also have full motion windows for 4 outputs and 6 keys, and all are fully customizable, and can be replicated across multiple monitors.

Great Live Events with Low Constant Delay

Enjoy low and constant 1 frame of delay end-to-end, including Picture in Picture, effects, layers, and format and aspect conversion, and adding clips and graphics. Only an unsynchronized camera (or rare 2 M/E re-entry) adds a frame of delay.



Granite Options

- Premium Storage: triple capacity, redundant RAID5
- Remote panel – for outputs and macros
- Tally Boxes: 8 or 24 – adds relay closures
- Fluent Rapid LT: cloud data from Twitter, RSS feeds, weather, date
- Fluent-Rapid CG 3: LT plus link to database, scoreboards, 2 channel
- Control robotic cameras from Panasonic, Hitachi, Telemetrics, Sony
- Control MIDI audio mixers from Yamaha and others
- Control servers from 360 Systems, Harris, Omneon and Grass Valley
- VOX voice-automation for radio, meetings and more
- Extended Warranty and software updates
- Training and/or commissioning

Video:
- Processing: 1080i
- Video I/O formats: 1080i/59.94, 1080i/50, 720p/59.94, 720p/ 6i/50.

Video Outputs:
- SDI: 1080i: Program, Clean Feed
  1080i/720p/SD: Program, Preview, PowerAux, Clean Feed
- DVI: 2 of 1080i: Program, Preview, PowerAux, Clean Feed

Inputs:	Granite	Granite+
• SDI Video	11	22
• Clip Channels	1	1
• Animation Channels	2	2
• Graphic Channels	4	4
Outputs:		
• SDI Video	6	12
• DVI	2	2

	Switcher	Server
Dimensions	3RU 19 x 16 x 5.25 in 49 x 41 x 13 cm	2RU 19 x 23 x 3.5 in 48 x 58 x 9 cm
Power	150W	400W
Weight	16 lbs / 7.3 kg	29 lbs / 13 kg

Mica System

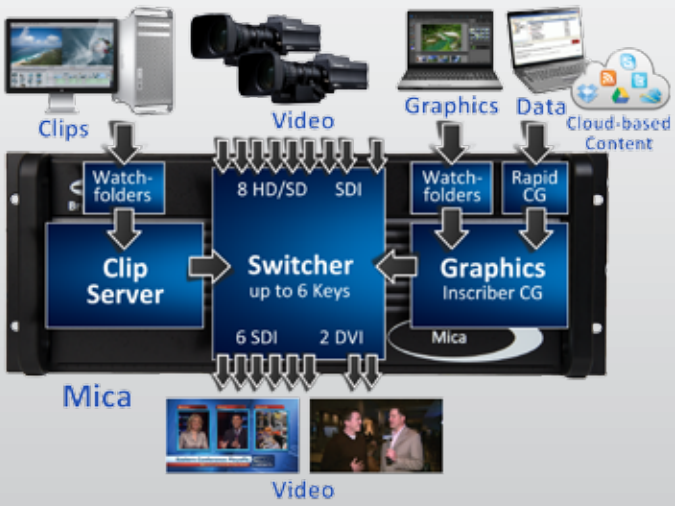
HD/SD Maximum Value

Mica is our mid-sized professional video production system, with end-to-end integration. It packs the power of an entire HD/SD video production system into a single 4RU box, and delivers exceptional control and value.

Mica provides exceptional value for productions needing up to 8 cameras. Like all Broadcast Pix systems it has exceptional end-to-end integration from ingest to production control to delivery.

End-to-End Integration

End-to-end integration includes ingesting many camera formats, files and cloud-based content including Skype, Twitter, Dropbox and Google drive. Harrassing Broadcast Pix production tools including patented control surfacs, multi-format switcher, clip player holding 30 hours of clips, CG, device control banks, dazzling fluent macros, virtual sets, customiable fluent-views, control of robotic cameras and other devices, the ability to add more operators when needed and more. Add delivery of broadcast quality outputs for projection, streaming and broadcast.



Powerful Multi-Format Switcher

Mica has 8 multi-definition SDI inputs for cameras, another SDI input for a key source and 7 channels of file-based inputs for clips, graphics and animations. Its built-in clip server holds up to 30 hours of clips and its CG is from Harris Broadcast. Create powerful production tools with up to 6 key layers. The switcher has 3 keys standard and 3 more optional (all standard on Mica 2000). One key can be filled with an external device and all can be filled with internal devices. Multiple DVEs enable up to 6 PiP boxes. Create a second composited output with format correction and keys for a second screen or a web production with PowerAux. Built-in redundancies include redundant video even if the system should ever stop, and a redundant control using Fluent-View or a SoftPanel if the panel should ever stop.

Great Live Events with Low Constant Delay

Enjoy low and constant 1 frame of delay end to end, including Picture in Picture, effects, layers, and format and aspect conversion, and adding clips and graphics. Only an unsynced camera adds delay.

Mica Options

- Remote panel – for outputs and macros
- Tally Boxes: 8 – adds relay closures
- Fluent-Rapid CG LT: connect Twitter, RSS feeds, date, weather
- Fluent-Rapid CG 3: LT + dual channel, databases, scoreboards
- Control robotic cameras from Panasonic, Hitachi, Telemetrics, Sony
- Control MIDI audio mixers from Yamaha and others
- Control servers: EditShare, Grass Valley, Harris, Omneon, 360
- VOX voice-automated control for visual radio, meetings and more
- Extend another year of warranty, support and software
- Training and/or commissioning

Video:
- Processing: 1080i
- Video I/O formats: 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, 480i/59.94 or 576i/50

Video Outputs:
- SDI: 1080i: Program, Clean Feed
  1080i/720p/SD: Program, Preview, PowerAux, Clean Feed
- DVI: 2 of: 1080i Program, Preview, PowerAux, Clean Feed

Inputs:	
• SDI Video	8
• SDI Key Cut	1
• Clip Channels	1
• Animation Channels	2
• Graphic Channels	4
Outputs:	
• SDI Video	6
• DVI	2

Dimensions	4RU 22.5 x 19 x 7 in 57 x 48 x 18 cm
Power	500W
Weight	44 lbs / 20 kg

Flint System

End-to-End Integration and Streaming

Flint is a breakthrough live video production system with end-to-end integration. Flint integrates the entire production workflow, from ingest to distribution, and is anchored by the company's established production toolset for creating sophisticated live video. Ingest includes many camera formats, files and cloud-based content including Skype, Twitter, Dropbox and Google drive. Delivery includes streaming and up to six professional HD and SD video outputs. Flint also has the ability to stream and record at the same time with great streaming freedom.

Integrated Ingest

Files from a local network or from cloud-based sources can be easily added to a program, even during a live production, with Fluent Watch-Folders. With enhanced Fluent Rapid CG, Flint can flow Twitter and RSS feeds directly to air or pre-screen them.

Production Control

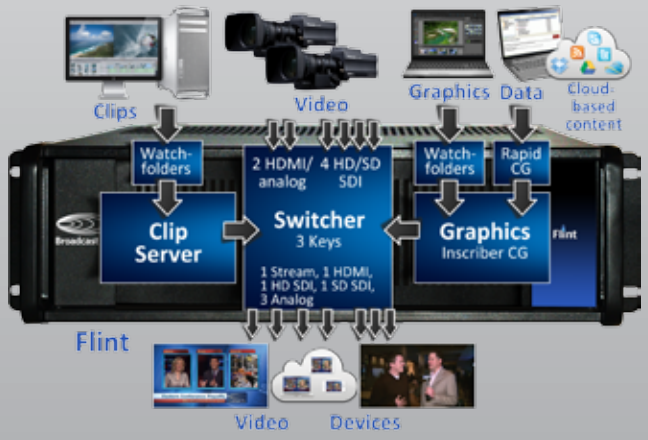
The Flint multi-format production switcher supports up to six HD/SD-SDI, HDMI, and analog cameras, plus eight channels of clips and graphics. It includes three keyers for layering, each with PiP and customizable DVE. An internal Harris Inscriber CG provides six graphic channels, while a built-in, two-channel clip server stores up to 30 hours of clips and animations in a variety of file formats. Flint also includes an 8-channel internal audio mixer and two (video only) network inputs.

Integrated Delivery

Flint systems stream .FLV with Adobe Media Live Encoder (up to 720p resolution) or .WMV with Windows Expression Encoder (at up to SD resolution). It can simultaneously output up to 6 video formats: HD SDI, SD SDI, HDMI, analog component, Y/C and component. Flint also has internal program output recording, 1920x1080i motion JPEG .AVI file with audio. No matter now hard you push Flint our patented process will maintain lip-sync.

Flint Options

- Fluent Rapid LT: Cloud feeds from Twitter, RSS feeds, weather and dates. Plus action buttons
- Fluent-Rapid CG 3: LT plus connect CG to data-bases, cloud data, scoreboards, news, 2 channel
- Additional seats of Harris Inscriber CG
- 1 M/E control panels: 500, 1000 and optional 2000
- Tally/GPI Box – with relay contact closures
- Control robotic cameras: Sony, Panasonic,..
- Control internal 8-channel audio mixer
- Control servers from 360 system, Harris, Omneon, Grass Valley (AJA is standard)
- VOX voice-automation for radio, meetings,..
- Extended Warranty and Software
- Training



Flint LE, LS below

	Flint	
Video Inputs	LE	LS
External:		
HDMI/Analog	3	2
SDI HD/SD	0	4
Network Inputs	2	2
Total External	5	8
Internal File Channels:		
Clips	2	2
Graphics	6	6
Total Internal	8	8
Total Inputs	13	16

	Flint	
Video Outputs	LE	LS
Stream	1	1
HDMI	1	1
HD SDI	-	1
SD SDI	-	1
Analog	1	3

LS: HD/SD component, Y/C, and composite. LE: select 1

Video Processing HD

Stream Adobe Flash at up to 720p and .WMV at up to SD resolution.

Video Input: 1080i/59.94, 1080i/50, 720p/59.94, 720p/50, 480i/59.94, 576i/50, 1080p/30, 1080p/29.97, 1080p25, 1080i/60, 720p/60, 486p/29.97, 576p/25

Clips: ProRes PX/LT/422/HQ/4444, H.264 .mov/.mp4, DNxHD .mov, QT Animations

Graphics: .tga, .png, .jpg, .gif, .bmp, .scribe

Audio: Input audio from a mixer, outputs mixed clip audio and delayed Program from mixer. Embeds audio in web stream and HDMI outputs, on LS also in SDI. LE: Line-level unbalanced analog (RCA) and AES (RCA) LS: Line-level balanced analog (1/4") and AES (RCA)

Size
3RU
19 x 5.25 x 20.8 in
48.3 x 13.3 x 52.8 cm

Weight
32 lbs
14.5 kg

Power
500 Watts

Professional Video Productions Systems with End-to-End Integration

Broadcast Pix offers you the unique ability to configure your ideal live video production system with a choice of a variety of control surfaces and platforms to meet your production needs

3 System Platforms

	Granite	Mica	Flint
Video	HD/SD	HD/SD	Mixable HDMI, HD, SD, SDI, 1080i
Internal Processing	1080i	1080i	1080i
Minimal Constant Delay	1 Frame	1 Frame	Constant Delay
Inputs	11 or 22 SDI plus 7 channels of files	8 SDI + 1 SDI key cut plus 7 channels of files	Up to 6 plus 8 channels of files
Outputs	6 or 12 SDI + 2 DVI	6 SDI + 2 DVI	Up to 7 simultaneous outputs
Clip Store Hours	Up to 180 hours	Up to 30 hours	30 hours
CG	Harris or Chyron	Harris or Chyron	Harris
Fluent-View Monitors	1, 2, 3 or 4	1 or 2	1 or 2

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